CCI CanadianComfortIndustries
A Vanderwell Company

PELLET STOVE OPERATIONS GUIDE

Manufactured by

CCI CanadianComfortIndustries
A Vanderwell Company
" The Complete Package "

Marketed by

DGI Dansons Group Inc.
Responsible Resource Development
"The Innovators."

For the following models: FPP, IPP, CC1, CC2, CC3, CCGB1, CCGB2, CCGB3 Installations shall conform to: CAN/CSA B365 Installation Code For Solid-Fuel-Burning Appliances and Equipment in Canada and NFPA 211 Chimney, Fireplaces, Vents and Solid Fuel Burning Appliances in the USA

Warnock Hersey C US Safety Listed

READ THIS ENTIRE MANUAL BEFORE INSTALLING YOUR PELLET STOVE/HEATER/INSERT. FAILURE TO FOLLOW INSTRUCTIONS MAY RESULT IN PROPERTY DAMAGE, BODILY INJURY OR EVEN DEATH

FOREWORD TO NEW OWNERS

Dear Pellet Appliance Owner,

Congratulations on the purchase of your wood pellet appliance. You have selected the finest in residential wood pellet heating technology.

This OPERATIONS GUIDE will walk you through the initial setup of your pellet stove, from first light to fine tuned adjustments. We have also included detailed information on cleaning and maintenance as well as wood pellet fuel facts.

Please note the following points regarding stove installation and pellet heating in general:

- Whether you install your stove yourself or hire a professional installer, ***a quality installation is a must*** for the safety of your family as well as efficient, satisfactory operation.

- Initial setup of the stove is the most important step to ensure consistent, comfortable operation.

- Know the quality and characteristics of the pellets you burn. Pellets can vary greatly from company to company, from load to load and even from bag to bag.

- Be dilligent in your cleaning program.

- Remember that most operational dilemmas with pellet stoves arise from improper installation, poor quality pellets, lack of timely cleaning or incorrect air flow adjustment.

With a minimum amount of consistent care, your pellet appliance will provide years of clean, efficient, comfortable and environmentally sound heating.

UPDATES

Updated manuals, product registration and warranty information can be found on our website:

www.dansons.com/support

Thank you for selecting our wood pellet stove!

Sincerely,
Dansons Group Inc. and Canadian Comfort Industries

We recommend that our pellet hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Pellet Specialists or who are certified in Canada by Wood Energy Technical Training (WETT).

We do NOT recommend pellet stoves as your only source of heat.
Do NOT install in a sleeping room.
Use of outside air is highly recommended with our pellet stoves, heaters and inserts.
Do not operate with the front door or hopper lid open.
Keep children, furniture, fixtures and all combustibles away from any heating appliance.
Installation and use of a carbon monoxide detector is highly recommended.

STARTING UP YOUR PELLET STOVE

1 STARTUP CHECKLIST

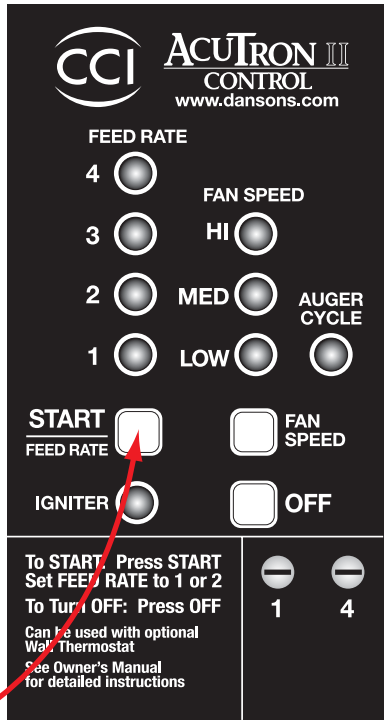
Please make certain you have completed the following checklist before proceeding:

- Unit is plugged into a 3 pronged grounded outlet
- Burn pot is clean, level & seated properly
- Front door of the stove is closed
- Screened pellets are in the hopper
- Pellet fuel complies with PFI standards (pelletheat.org)
- Unit is ***NOT*** plugged into a GFI outlet (ground fault interruptor)

FOR NEW INSTALLATIONS:

- ***Used only PL or L approved venting***
- Sealed vent connections with high temp RTV sealant ***and allow sealant to cure for 24 hours***
- ***Make sure #1 trim pod is set to 9 o'clock position*** (see pg 5)
- ***Air inlet damper is OPEN to between 1/4" and 1/2"*** (see 'Initial Setup' section on page 4)

We STRONGLY recommend the use of a surge protector to protect the circuitry in your control board.



Procedures listed will work with both AcuTron II & AcuTron III control boards.

2 LIGHTING PROCEDURE

Push firmly on the **START / FEED RATE** button.

A. The COMBUSTION FAN (exhaust) will start and operate at full speed for 60 seconds, then will slow to match the startup rate

B. The CONVECTION FAN (heat circulation) will start and the LED will go solid on LOW setting

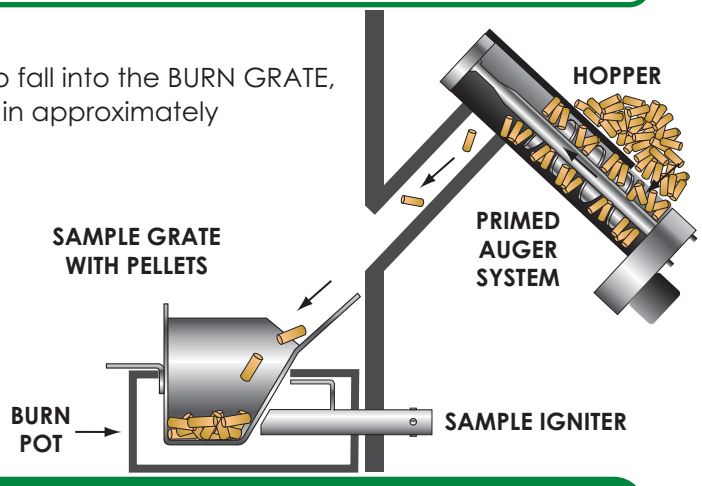
C. The AUGER CYCLE LED will go solid for 3 seconds indicating the signal is being sent to auger motor

D. The IGNITER LED will light up solid and the igniter will begin to heat up

3

On a **primed auger system**, pellets will begin to fall into the BURN GRATE, and the igniter will automatically ignite pellets in approximately 3 to 7 minutes.

During first-time startup procedure, your auger system IS NOT PRIMED (meaning pellets have not filled the entire auger system yet). To solve this, simply press the**START / FEED RATE** button again.



4

Adjust FUEL RATE and FAN SPEED to your desired settings (see ***PELLET STOVE ADJUSTMENTS*** section).

If the fire does not start, your stove will continue to feed pellets and run the fans for 15 minutes. The stove will then automatically shut off.

If the stove fails to ignite a second time, refer to the *TROUBLESHOOTING* section of your manual or contact your pellet stove dealer.

NOTE: ***New stoves can emanate an odor during the initial few hours of burning while the paint cures. Ventilating the room is strongly recommended until the odors disappear.***

PELLET STOVE ADJUSTMENTS

INITIAL SETUP

It is critical for the correct operation of your stove that the burn grate, air inlet damper, combustion fan speed and fuel rate be set correctly!

1 START THE APPLIANCE AS PER THE LIGHTING INSTRUCTIONS.

The igniter light MUST be off in order to begin further adjustments; this can take from 10-15 minutes to occur. Let the stove run until the igniter light goes off, then push the **START / FEED RATE** button several times until feed rate #4 LED lights up. Let stove run for 10-15 minutes.

Now you will adjust the air inlet damper. This will have to be set because the factory must be able to accomodate a wide range of installations and elevations as well as fuel length and quality.

2 AIR INLET DAMPER

Slide open or close the damper as needed to obtain a fire that is brisk enough to carry ash out of the grate, but not so brisk that it carries whole pellets out as well; this is known as ***popcorning***.

Normally, you should find that the damper will need to be 1/4" to 1/2" open. This may vary with length of vent run, pellet quality and elevation. The best way to set this is at ***feed rate #4***. Adjust the damper rod 1/8" at a time, letting the stove burn for 1-2 minutes per adjustment, until pop-corning ceases.

DEFINITIONS

POPCORNING

Popcorning is the result of incorrectly set air flow, causing fresh unburned pellets (or barely ignited pellets) to be carried out of the burn grate and into the ash bin by high air flow. This occurs ***before*** more pellets have fallen into the burn grate (ie. It's **AIR** that carries the pellets out, not the impact of newly dropped pellets. See ***SPARKING***). A pellet that has been 'popcorned' out of the burn grate can glow for anywhere from several seconds to several minutes.

Figures A and B show popcorning at #1 feed rate.

SPARKING

Sparking occurs from the impact of fresh pellets being dropped into the burn pot and knocking parts of burning pellets out. Also, the natural burning of wood can create sparks. Sparks will glow in the ash bin generally for several seconds before burning out.

Figure C shows sparking at #4 feed rate.

PLEASE NOTE: Sparking is normal. Popcorning can be remedied by following step 2 above.

3 FINE TUNING YOUR STOVE

Once the damper rod is set and your pellets are burning steadily (ie. no popcorning), you are ready to fine tune your stove. Fine tuning is required due to the differences in installation configuration, geography, insulation of the home, and quality of pellets.

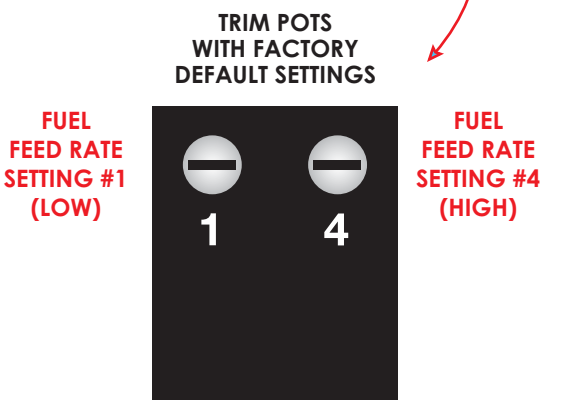
Do NOT use a metal object to adjust your trim pots. Try using a plastic non-metallc object (eg. insulated shaft screwdriver, pen cap, etc.)

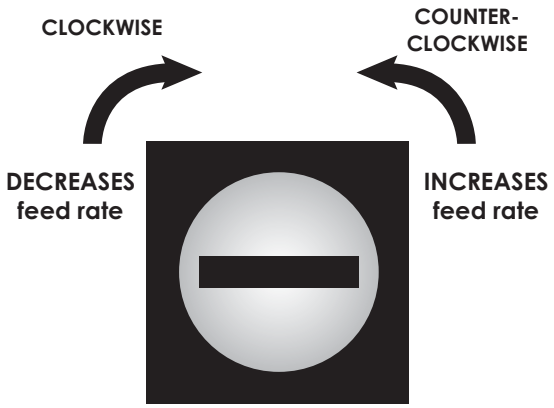
First, switch to feed rate #1 by pressing the START / FEED RATE button until the #1 LED lights up.

A Turn the #1 trim pot COUNTER CLOCKWISE until the dial stops, then turn back to 9-3 o'clock position as illustrated.

B Turn the #4 trim pot CLOCKWISE until the dial stops, then turn back to 9-3 o'clock position as illustrated.

By adjusting these trim pots as described above, you are ensuring that your stove is now at its optimal settings. ***You may need to adjust the feed rates after a few days of burning.***





FUEL RATES

At this point, your stove should still be running on the #1 setting (low). Let this burn for approximately 10 minutes before making any further adjustments.

Fuel feed rate at the lowest (#1) and highest (#4) settings can be changed by adjusting the #1 or #4 trim pots located on the control panel.
To INCREASE fuel feed rate, turn the trim pot COUNTER CLOCKWISE.
To DECREASE fuel feed rate, turn the trim pot CLOCKWISE.

IMPORTANT: The #1 and #4 trim pot dials ONLY adjust fuel feed rates 1 and 4.

WARNING: Adjusting FEED RATE #1 too low (clockwise) may cause your stove to shut down.

WOOD PELLET FUEL

The performance of your pellet appliance is greatly affected by the type and quality of wood pellets burned. As the heat output of various brands of pellets differs, so will the performance and heat output of your appliance.

PELLET QUALITY

Your pellet stove is designed to burn APFI/FFI 'Premium' or 'Standard' quality wood pellets. Pellets that are soft contain excessive amounts of loose sawdust, have been or are wet, and produce ***clinkers*** or ***heavy ash*** will result in reduced performance and may actually cause the fire to go out.

PELLET CONSUMPTION

Fuel consumption will vary somewhat between fuel brands and stoves. The following 'rough guide' to pellet usage may be useful in assessing your stove's operation, for ordering fuel and in providing information to your authorized pellet stove dealer.

Setting	Approximate Burn Times 120 lb Hopper	300 lb Hopper	Amount of Pellets Burned
1	40 - 80 hours	100 - 200 hours	1.5 - 3 lbs per hour
2	35 - 48 hours	86 - 120 hours	2.5 - 3.5 lbs per hour
3	27 - 35 hours	67 - 86 hours	3.5 - 4.5 lbs per hour
4	22 - 30 hours	55 - 75 hours	4 - 5.5 lbs per hour

Fuel flow and burn times quoted are approximate and may vary with type of fuel used.

FACTORS AFFECTING PELLET FEED RATES

Generally, the smaller, harder and cleaner (free from fines) the pellets are, the faster they will feed at a given setting and vice versa.

The extremes in pellet size and quality can cause several hours of difference in burn time for a 40 lb bag of pellets.

Heat production is directly related to the pounds of fuel burned per hour. As fuel consumption goes down so will heat output and vice versa.

Pellet feed rate, at the same fuel settings, may vary greatly from brand to brand and may vary somewhat from batch to batch within the same brand.

We recommend the use of screened pellet fuel in order to reduce the amount of fines your stove will have to cope with.

DEFINITIONS

ASH

Ash is a natural product of burning wood. As the amount of ash in the wood increases, the amount of ash left behind after burning high-ash wood pellets will increase.
High quality pellets will produce less ash and fewer ***clinkers*** than lower quality pellets.

CLINKER

Clinkers are solid, glassy or porous accumulations of incombustible matter that may result from burning some types of wood pellets. Clinkers are formed at the bottom of the burn grate and, if left undisturbed, will build up and cut off combustion air. As clinkers grow, the fire becomes orange/brown and 'lazy'. Pellets may build up in the burn grate, the firebox & window may become sooty, and exhaust gases may become smoky.

FINES

Fines are pieces of sawdust that were not properly formed or are the result of pellets breaking down during handling, transporting and storage. Fines adversely affect the operation and heat production of pellet appliances, and they greatly increase the requirements for general cleaning and maintenance. Fines cause pellets to feed more slowly, thus reducing the amount of heat produced at any given heat setting.

NOTE: It is much easier to remove fines from pellets before they are placed in the stove than it is to service your stove for a plugged hopper, jammed auger or plugged exhaust system. Pellets with excessive sawdust may be *screened* to remove most of the fines. Pellet screeners may be built or purchased from most pellet stove dealers.

PFI PELLET STANDARDS

For the Pellet Fuel Institute (PFI), standards for residential quality pellets are as follows:

Length:	1.5 inches maximum
Diameter:	0.235 to 0.350 inches (approx. 1/4" to 3/8")
Fines:	.2 lb maximum per 40 lb bag
Salts:	0.005% by weight maximum
Ash Content:	
- Premium Quality	0.75% by weight maximum (0.3 lb per 40 lb of pellets)
- Standard Quality	2.5% by weight maximum (1 lb per 40 lb of pellets)

Find out more at
www.pelletheat.org

NOTE: Because Dansons Group Inc. and Canadian Comfort Industries have no control over the quality of pellets that you use, we assume no liability caused by issues relating to the quality of chosen pellets.

REQUIRED ROUTINE CLEANING

WARNING: Disconnect the electrical cord prior to opening the sides of your stove or opening the exhaust system for any inspection, cleaning, maintenance or service work. NEVER perform any inspection, cleaning, maintenance or service on a HOT STOVE or when the cord is plugged in.

Proper care of your pellet stove or heater is required for peak, sustained performance. The need for frequent cleaning depends upon:

- amount of pellets burned
- pellet quality
- length of time since the previous cleaning
- quality of the fire

RECOMMENDED MAINTENANCE SCHEDULE

W **WEEKLY (or every 2-3 days)**

S **SEASONALLY (or every 1-2 tons of fuel burned)**

BURN GRATE - Clean as needed, scraping off any residue that may stick to the grate bottom or sides. Ensure the holes are clean and unrestricted. CAUTION: When replacing the grate, **make sure it is properly seated in the burn pot** (ie. sitting level, front to back, left to right). W

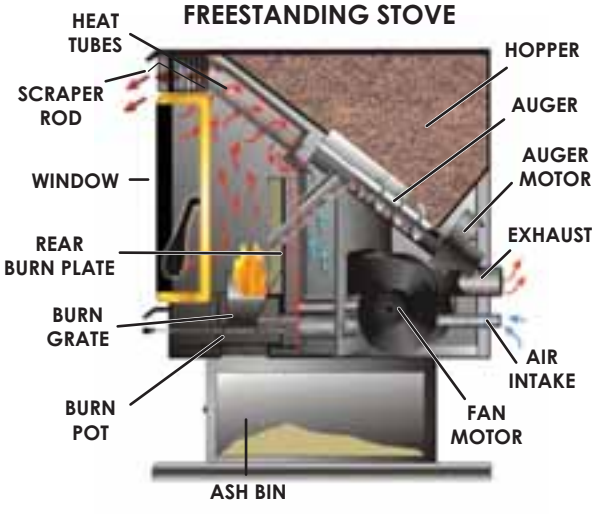
BURN POT - Remove the burn grate. Clean out the burn pot as needed. Do not push the ash to the back of the pot as this will restrict the air flow and affect the performance of this appliance. W

HEAT TUBES - With your stove's main door closed, pull the HEAT TUBE SCRAPER ROD forward and backward a few times. As different types of pellets produce different amounts of ash, cleaning the tubes enables the heat exchange to operate efficiently. CAUTION: On a burning stove, the scraper rod is HOT or may not move due to metal expansion. W

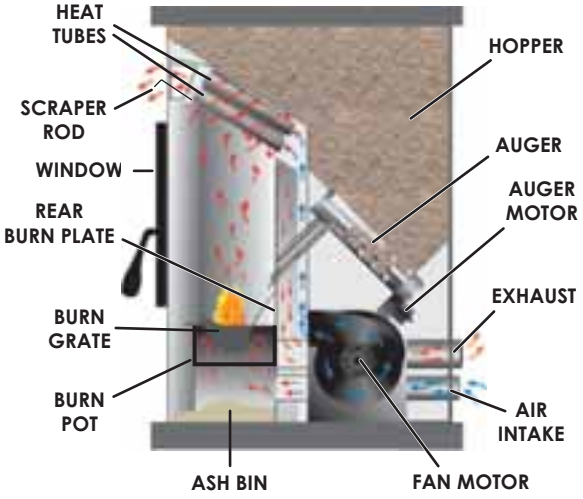
ASH BIN - Monitor the ash level on a weekly basis. Ash content is a good indication of fuel efficiency and quality. **A HOME SHOP VAC MAY BE USED TO REMOVE ASH FROM YOUR STOVE *ONLY* WHEN THE ASHES HAVE COOLED.** Refer to your ***TECHNICAL GUIDE*** for more information on the safe disposal of ash. W

ASH TRAPS - Remove the rear burn plate from the firebox area. This will expose the 2 ash traps and the pellet fuel drop chute. Fly ash may be removed by vacuuming inside the trap area with an approved ash vacuum (**A HOME SHOP VAC MAY BE USED TO REMOVE ASH FROM YOUR STOVE *ONLY* WHEN THE ASHES HAVE COOLED**). A bottle cleaning brush can help remove build-up inside the traps. S

FREESTANDING STOVE



SHOP HEATER



WINDOW CLEANING - Clean your window as needed with an approved wood appliance glass cleaner to remove heavy build-up on the window. ***Do NOT use abrasive chemical cleaners.*** A ***000 steel wool pad*** may be used to scour any hard-to-remove creosote and carbon accumulation. Finish your cleaning procedure by washing down the glass with vinegar & water to remove cleaner residue. **DO NOT OPERATE YOUR STOVE WITH BROKEN GLASS!** W

REQUIRED ROUTINE CLEANING

WARNING: Disconnect the electrical cord prior to opening the sides of your stove or opening the exhaust system for any inspection, cleaning, maintenance or service work. NEVER perform any inspection, cleaning, maintenance or service on a HOT STOVE or when the cord is plugged in.

(cont'd)

HOPPER CLEANING - Check the hopper periodically to determine if there is any sawdust or pellets that are sticking to the hopper surface and clean as needed. (W)

GLASS REPLACEMENT - In the event you need glass replacement, only Neo-Ceram of the correct size and thickness may be used. Contact your Authorized Dealer to obtain this glass.
DO NOT OPERATE YOUR STOVE WITH BROKEN GLASS!

DOOR GASKET - Inspect the main door gasket periodically. The main door may be removed to have frayed, broken or compacted gaskets replaced by your Authorized Dealer. (S)

FAN MOTORS - Clean the intake on the CONVECTION FAN (circulation) as well as the holes on the motors of both COMBUSTION and CONVECTION FANS annually. Disassemble the COMBUSTION FAN and clean out the internal fan blades as part of your fall season startup. (S)

FRESH AIR INTAKE - Inspect periodically to be sure that it is not clogged with any foreign materials. A plugged screen will restrict or shut off combustion air and cause a fire to burn poorly or die out. (W)

GOLD/BRASS TRIM CLEANING - Use a damp cloth to clean your door and trim. **DO NOT USE ANY ABRASIVE CLEANSERS AS YOU WILL REMOVE OR SCRATCH THE PLATING!** (W)

INSPECT AND CLEAN VENTING - Fly ash will collect in the exhaust venting system and restrict the flow of flue gases. Check the clean out tees and elbows in the system periodically to determine the required schedule of cleaning. To remove dust from the vent pipe, lightly tap on the pipe to dislodge loose ash. Open the bottom of the tee to dump the ash, then use an ash vacuum to remove as much ash as possible from the pipe. 3" and 4" chimney brushes are available for cleaning. **If the exhaust system has a screen on it, frequently clean the screen.** A plugged screen will shut down the stove or cause the fire to burn poorly or die out. (S)

PAINTED SURFACES - Painted surfaces may be wiped down with a damp cloth. If scratches appear or you wish to renew your paint, contact your Dealer to obtain a can of 'satin black' (***Stove Brite*** brand) TIP: Use a hair dryer to warm the surface prior to touching up the paint; this helps to reduce paint runs.
NOTE: Do not use any other brand than *Stove Brite* as they may not be compatible. (S)

SPRING SHUTDOWN - After the last burn in the spring, complete the following tasks:

- remove pellets from hopper and auger
- vacuum out the hopper
- thoroughly clean the burn grate, burn box, ash traps and ash bin
- consider spraying the inside of the cleaned hopper with an aerosol silicone spray if your stove is in a high humidity area
- thoroughly clean exhaust system ***(see above)***

A yearly servicing and cleaning by your Authorized Dealer is recommended. Please consult with your Dealer for availability of this service, time involved and possible fees.

TROUBLESHOOTING

Proper cleaning, maintenance and use of quality pellets will prevent common operational issues with your pellet stove. However, when your appliance is simply operating poorly or not at all, the following troubleshooting tips may be helpful.

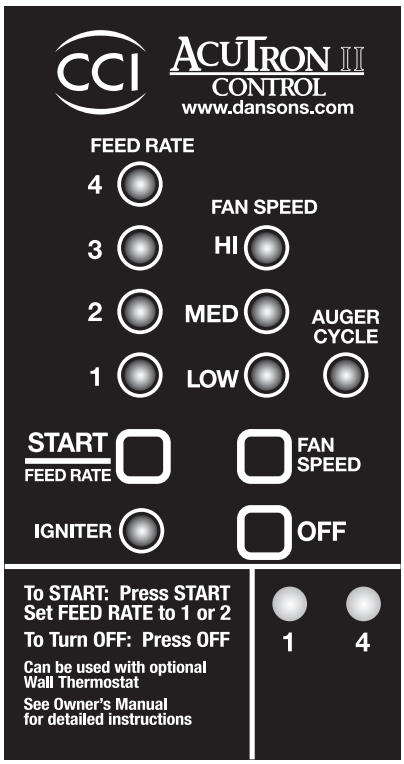
WARNING: Disconnect the electrical cord prior to opening the sides of your stove or opening the exhaust system for any inspection, cleaning, maintenance or service work. NEVER perform any inspection, cleaning, maintenance or service on a HOT STOVE or when the cord is plugged in.

PROBLEM	SOLUTION
Orange, lazy flame	- clean out burn grate and burn pot - examine ash traps, clean as needed - check exhaust system, clean as needed - refer to PELLET STOVE ADJUSTMENTS section of this manual
Sooty window	- check outside air and exhaust screens, unplug if necessary - make sure main door and (if applicable to your model) ash bin cover are tightly closed - refer to PELLET STOVE ADJUSTMENTS section of this manual
Pellets build up in the burn grate	- check main and (if applicable to your model) ash door gaskets, replace if worn - check pellet fuel; replace if moist, wet, dirty or high in fines - refer to PELLET STOVE ADJUSTMENTS section of this manual - contact with your Authorized Dealer for service
Fire goes out **Fans will not run when START / FEED RATE button is pushed**	- verify that the appliance is plugged in and electricity is running to that outlet; verify that the outlet is NOT GFI (ground fault indicator) - refer to PELLET STOVE ADJUSTMENTS section of this manual - contact your Authorized Dealer for service
Pellets will not feed	- hopper is empty; fill the hopper with fresh, clean, dry pellets - fuel switch has not been pushed to 'ON' (some models) - auger system or controls need service - exhaust system is plugged; clean venting - refer to PELLET STOVE ADJUSTMENTS section of this manual - contact with your Authorized Dealer for service
Stove runs 15 minutes, then shuts off	- startup fire did not catch; light a new fire by pressing the START / FEED RATE button again - contact with your Authorized Dealer for service
Fans do not shut off when stove cools down	- contact with your Authorized Dealer for service
Ash and/or pellet dust is accumulating in the house, or the smell of smoke is detected	- check for and correct any leaks in the exhaust system - take greater care in handling ashes, cleaning window glass, opening the doors more slowly and in filling the hopper - contact with your Authorized Dealer for service

CAUTION: The electrical, auger and digital control components of your stove are not owner serviceable. Call your Authorized Dealer for proper diagnosis of problems and service for those components.

For more detailed troubleshooting tips, please visit *www.dansons.com/support*

CONTROL BOARD UPDATE



The controller on your stove has been fitted with memory. Should you have a power outage or blip, the unit will come back on the setting that you had left it at before.

Before you first plug in a new stove after installation, make sure you have removed all foreign objects from the hopper. When you first plug in the stove, it may possibly power up due to the initial memory test. At this time press the OFF button.

This control is equipped with various functions. As a result, you need to check to make sure you are in the proper burn mode. Once your desired setting is reached, press the START button for operation.

NOTE: Corn stoves **DO NOT USE AN IGNITER.** The igniter light is the 15 min. delay until the unit reaches the required operating temperature.

To confirm the mode, press and hold the OFF button. When the desired mode flashes as stated below, release the OFF button and press START.

The 3 modes are as follows:

1. When the red FEED RATE lights 3 and 4 flash, that is the High/Low Thermostat Cycle (optional *).
2. When the red FEED RATE lights 1 and 2 flash, that is the On/Off Thermostat Cycle (optional *).
3. When the red FEED RATE lights 1 and 4 flash, that is the manual function.

You may hit the START button if you are ready with a full hopper of fuel.

* The thermostat is available separately from the stove.

My local dealer is:

To register your purchase, visit ***www.dansons.com/support***

Technical Support

Monday to Friday, 9 am to 8 pm EST	**1-877-303-3134**
Saturday, 11 am to 7 pm EST	**1-866-456-9269**

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